NATIONAL MARINE
SANCTUARIES ™

Habitat Characterization

1. What are the species you are looking for?

2. What are the habitats and what do they look like?

3. How do you estimate abundance?

Habitats
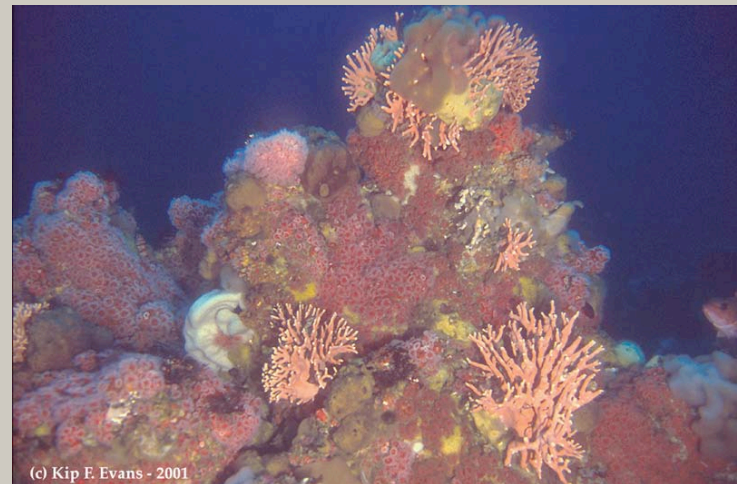
Rocky Reef :

Any area with rocky boulders, granite, or pinnacles

(c) Kip F. Evans, 2001

(c) Kip F. Evans - 2001

Habitats

Soft Bottom:

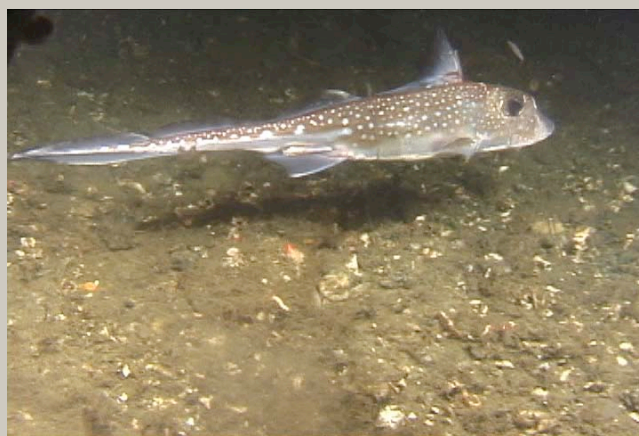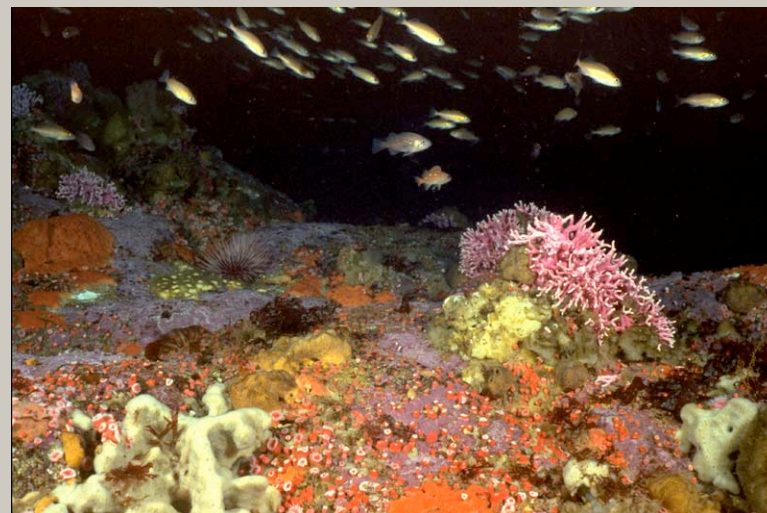**Any area that is lacking reef material, and consists of soft, sandy, or muddy substrate**

Species Identification

Characteristics to look for:

o **Body Shape**
o **Color**
o **Behavior**
o **Habitat**

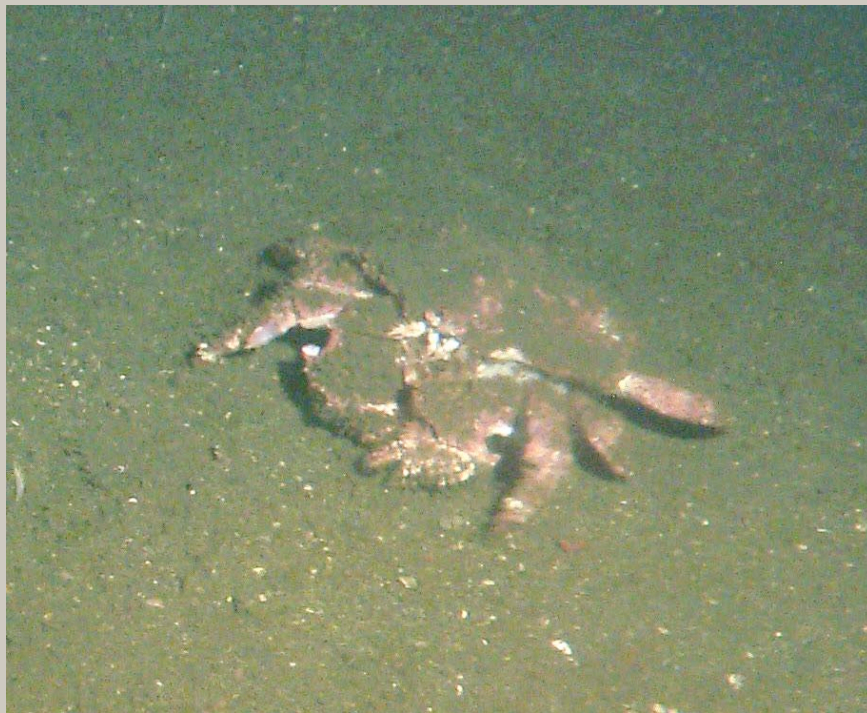# Invertebrates

Sea Cucumber *(Parastichopus californicus)*

Invertebrates

Box Crab (*Lopholithodes foraminatus*)

- Slow moving

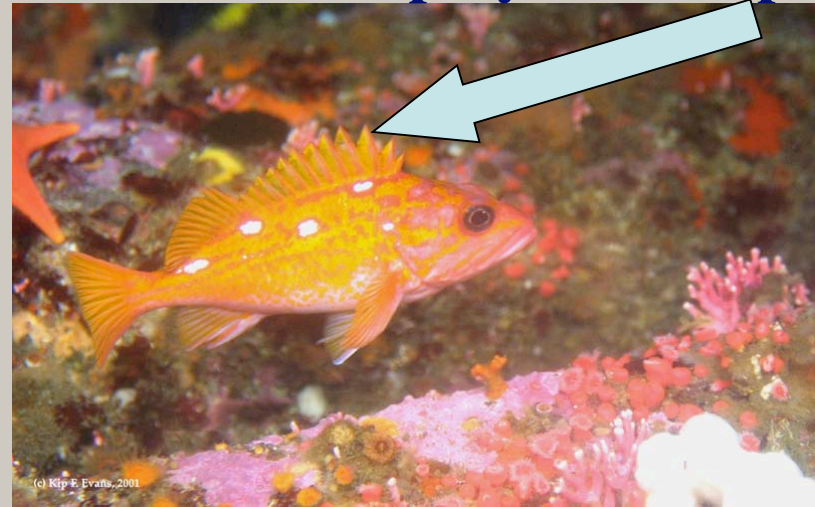- Usually seen over soft bottom habitat

Fish

Rockfish
(*Sebastes sp.*)

spiky dorsal spines

Big eyes

Big lips

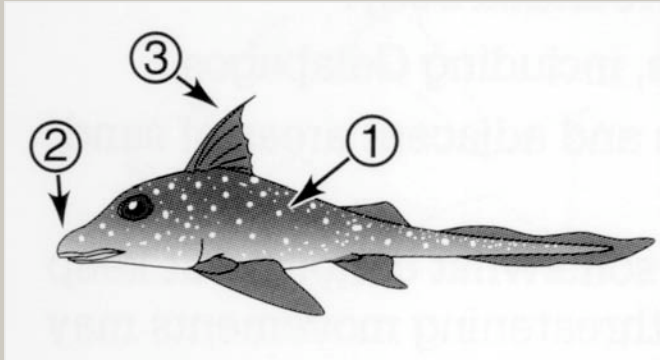# Fish

Juvenile rockfish

(c) Kip F. Evans, 2001

Fish

Rockfish

< 1 fish length   or   > 1 fish length

Fish

Ratfish (*Hydrolagus colliei*)

o **"wing-like" fins**
o **watch for shadows on the bottom**

How to rate the abundance

Single 1

Few 2-10

Many 11-500

Abundant 500 and more….

Abundance

Single 1

Many 11-500

Few 2-10

Abundant >500

Lasers= 20 cm apart

What is it?

What is it?

What is it?

Characterizing habitat

- Gain information about the ecosystem and its inhabitants

Monitoring

- Tracking changes over time

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